

WHAT IS CLAIMED IS:

1. A spiral separation membrane element comprising a perforated cored tube and, spirally wound therearound, one or more separation membranes, one or more feed-side passage materials, and one or more permeation-side passage materials, the separation membranes and the passage materials being wound around the cored tube so that the feed-side passage materials and the permeation-side passage materials are disposed respectively on the feed side and permeation side of the separation membranes and that a permeation-side passage material which is the same as or different from the permeation-side passage materials is interposed at the periphery of the perforated cored tube,

wherein the effective perforated-part area as calculated by multiplying the total area of the perforated parts in the core tube by the percentage of openings of one layer of the permeation-side passage material surrounding the core tube is at least 1.0 time the inner cross-sectional area of the core tube.

2. The spiral separation membrane element as claimed in claim 1, wherein the permeation-side passage material interposed at the periphery of the core tube is wound so as to make substantially 2-15 laps.

3. The spiral separation membrane element as claimed in claim 1 or 2, wherein the separation membranes are ultralow-pressure reverse osmosis membranes, ultrafiltration membranes, or microfiltration membranes.